



An Assessment of Health Education Responsibilities and Competencies Addressed in Continuing Education Contact Hour Articles

Jeffrey K. Clark, Roberta J. Ogletree, James F. McKenzie, Dixie Dennis, and Brenda E. Chamness

ABSTRACT

For more than a decade the health education profession has used the seven responsibilities, outlined from the 1978-1988 Role Delineation Project, as the foundation for credentialing, curricular structure in professional preparation programs, and continuing education. The purpose of this study was to investigate the extent to which the seven responsibilities and corresponding competencies were addressed in continuing education articles found in the professional literature. The method included using the Health Competency Assessment form to code responsibilities and competencies found in all continuing education articles (n=148) published between 1997 and 2000. The census of articles was found in four peer-reviewed journals and on web sites that published such articles for Certified Health Education Specialists. All articles offered for continuing education contact hours were selected and divided equally among the five researchers to read and evaluate (interrater reliability $\text{Pi}=0.76 - 0.87$). Results were tabulated and analyzed using descriptive statistics. The results indicated that the responsibilities are not addressed uniformly in the continuing education articles. Responsibilities I (assessing needs) and IV (evaluating programs) were most frequently addressed. Responsibility VI (acting as a resource person) was addressed in the literature the least often. As a result of this study it can be concluded that competencies are not addressed uniformly in continuing education articles. Based on the study's findings it is suggested that editorial boards of professional journals may want to clarify the role of their respective journals in continued professional development of their readers.

“Credentialing is a process whereby an individual or professional preparation program meets the specified standards established by the credentialing body and is thus recognized for having done so” (Cottrell, Girvan, & McKenzie, 1999, p. 138). Credentialing of individuals may be accomplished by licensure, registration, or certification (Taub, 1993). The health education profession has chosen certification as its means of credentialing

individuals. Since 1989 the Certified Health Education Specialist (CHES) credential has been available to health educators through the National Commission for Health Education Credentialing, Inc. (NCHEC) (Auld, 1997).

To maintain CHES certification, continuing education is required by NCHEC. As of January 1999, CHESs are required to complete a total of 75 continuing education contact hours (CECH) over

Jeffrey K. Clark, HSD, is an associate professor and James F. McKenzie, PhD, is a professor in the Department of Physiology and Health Science at Ball State University, Muncie, IN 47306; E-mail: jclark@bsu.edu. Roberta J. Ogletree, HSD, CHES is an associate professor and Dixie Dennis, PhD, CHES, is an assistant professor at Salisbury University, Salisbury, MD. Brenda E. Chamness, MS, CHES is assistant director of Smokefree Indiana, Indianapolis, IN.

**Table 1. Number and Percentage of Articles by Year and by Journal**

Journal	AJHE	AJHS	HEB	HPP	Totals
Year	1997 - 2000	1997 - 2000	1997 - 2000	2000	
N ^a (%)	48 (31.7)	47 ^b (33.1)	48 (31.7)	5 (3.3)	148 (100)

Abbreviations: AJHE, American Journal of Health Education; AJHS, American Journal of Health Studies; HEB, Health Education and Behavior; HPP, Health Promotion and Practice

^aN = total number of articles published by the journal that meet criteria for inclusion in the sample.

^bVolume 16, issue 4 had not been published at the time this manuscript was submitted; therefore, the 2000 issue was short three articles.

a 5-year period (NCHEC, 1999). For CHESs, continuing education experiences must be related to the seven areas of responsibility and associated competencies as set forth in *A Framework for Competency-based Health Education* (NCHEC, 1990). Furthermore, they must lead to development or enhancement of knowledge and skills related to the competencies (NCHEC, 1994).

One means by which CHESs may receive CECH is through self-study via designated journal articles. Articles typically are not solicited to be used for continuing education credit. Rather, CECH articles are chosen based on whether they address the CHES areas of responsibility (Redican & Stewart, 1998). As of September 2001 the journals of three professional organizations offered self-study articles. Those journals include *Health Education and Behavior* and *Health Promotion and Practice* (Society for Public Health Education), *American Journal of Health Education* (American Association for Health Education), and *American Journal of Public Health* (American Public Health Association). In addition, the *American Journal of Health Studies*, which is not associated with a professional organization, also offers continuing education credit hours for CHES through self-study journal articles.

Recently, a retrospective study (Clark, Ogletree, Chamness, Atkinson, & McKenzie, 2000) was conducted to identify the extent to which each of the seven responsibilities was addressed in health education professional literature regardless of whether or not the individual articles were identified for

CECH. The sample of articles for this study was drawn from three of the journals identified above, as well as two additional journals. The findings of that study suggested that professional literature did address some, but not all, of the seven responsibilities. The purpose of this study was to investigate the extent to which the seven responsibilities and competencies have been addressed in recent issues of the health education professional journals that provide CECH opportunities for CHESs. CECH articles are one means by which health education organizations attempt assist practitioners in the efforts to be keep current.

METHOD

Four health education professional journals that publish CECH articles were selected for examination. The journals were selected because they published CECH articles where the CECH articles were identified at the time the issue was published. Consequently, articles from the *American Journal of Public Health* were not included in the sample. All issues from the selected journals from January 1997 through December 2000 were included in the sample. Included in the analysis were all articles published as CECH for recertification of the credentialed health education specialist in the journals from that time period.

Articles that met the study's criteria (N=148) were cataloged and assigned a number. Table 1 reveals the number of articles that were designated as articles used for CECH. From the pool of 148

CECH articles, 48 were from *Health Education and Behavior*; 48 articles were from the *American Journal of Health Education*; 47 were from the *American Journal of Health Studies* (issue 4 of this journal was not published at the time this manuscript was submitted, reducing the sample by 3 CECH articles); and five were from *Health Promotion and Practice*. The journal *Health Promotion and Practice* released the first issue in January 2000. Consequently, only 5 articles were published from that journal that met the criteria for this study.

A Health Competency Assessment form created for an earlier study (Clark et al., 2000) was used to code those areas of responsibility and competencies addressed in each article. For example, if an article included a description of how a program was implemented and that description addressed any of the four competencies under Responsibility III (implementing programs), the applicable competencies were checked on the coding instrument. A separate form was used for each of the four journals. Even though subcompetencies were not assessed, they were listed under each of the competencies to help researchers identify the specific competencies. An equal number of articles was assigned randomly to each of the five researchers for coding. In addition, all researchers evaluated a small subsample of randomly selected articles to establish interrater reliability. A method developed by Scott (1955) and recommended by Holsti (1969) was used to determine interrater reliability. Using this

**Table 2. Areas of Responsibility Covered by Articles**

Area of Responsibility	AJHE Articles	AJHS Articles	HEB Articles	HPP Articles	Total Number Articles	Percentage of Sample ^a
Responsibility I (assessing needs)	28	46	37	2	113	76
Responsibility IV (evaluating programs)	25	9	24	4	62	42
Responsibility VII (communicating health needs)	24	10	24	0	58	39
Responsibility II (planning programs)	16	15	24	2	57	39
Responsibility III (implementing programs)	14	13	14	1	42	28
Responsibility V (coordinating)	10	7	14	1	32	22
Responsibility VI (acting as a resource person)	9	2	7	0	18	12

Note: N = 148.
^aTotal number of articles addressing the competency/n

method the range of Pi for the five raters was 0.76 to 0.87, whereas the Pi score for the group of five raters was 0.79. It is generally recognized that a correlation among the raters of .8 or higher is desirable (Aday, 1989), but lower rates have been acceptable in works of an exploratory nature (Borderns & Abott, 1988).

RESULTS

The Health Competency Assessment forms were tabulated by journal to determine the number of articles that covered each responsibility. The results of this tabulation are found in Table 2. The number of articles addressing each responsibility ranged from 113 (76%) (Responsibility I: assessing individual and community needs for health education) to 18 (12%) (Responsibility VI: acting as a resource person in health education).

All seven areas of responsibility were addressed in the sample of CECH articles. However, not all responsibilities were addressed in each journal represented in the sample. For example, the five CECH articles from *Health Promotion and Practice* covered the first five responsibilities, but not Responsibilities VI (acting as a resource person in health education) or VII

(communicating health and health education needs, concerns, and resources).

Competencies covered were tallied by journal and totaled across the four journals. These results are found in Table 3. The various competencies were covered a total of 900 times in the 148 articles reviewed, an average of 6.08 per article.

The responsibility addressed most often and in the greatest number of CECH articles was Responsibility I (assessing individual and community needs for health education). Responsibility I was addressed a total of 286 times in 113 (76%) of the 148 articles in the sample. Within Responsibility I, Competency A (obtain health related data about social and cultural environments, growth and development factors, needs, and interests) was addressed in 98 (66%) of the articles. Competency B (distinguish between behaviors that foster and those that hinder well-being) was addressed in 96 (65%) articles. Ninety-two articles (62%) addressed Competency C (infer needs for health education on the basis of obtained data).

Responsibility IV (evaluating effectiveness of health education programs) was the second most commonly addressed responsibility being identified a total of

209 times within 62 (42%) of the sample articles. Competency D (infer implications from findings for future program planning) was addressed in 56 articles (38%), while Competency A (develop plans to access achievement of program objectives) was addressed in 53 articles (35%). Competency C (interpret results of program evaluation) was addressed in 51 articles (34%) and Competency B (carry out evaluation plans) was addressed in 49 articles (33%).

The two responsibilities addressed least often in this sample of CECH articles were Responsibility V (coordinating provision of health services), which was addressed 52 times in 32 (21%) articles, and Responsibility VI (acting as a resource person), which was covered 26 times in 18 (12%) articles. Under Responsibility VI, Competencies A (utilize computerized health information retrieval systems effectively) and C (interpret and respond to requests for health information) were addressed by the fewest number of articles ($n=5$ [3%] for each competency).

When competencies were tallied, it was found that the journal *Health Education and Behavior* addressed the competencies most frequently. In this journal, competencies were addressed 346 times in the 48 CECH

**Table 3. Number of Times Competencies Were Addressed by Journal**

Journals (n)*	Area I			Area II				Area III				Area IV				Area V				Area VI				Area VII				Total
												COMPETENCIES																
	A	B	C	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	
AJHE (48)	24	23	22	11	14	11	8	10	7	11	7	22	19	22	23	5	5	4	4	2	5	3	3	18	10	8	4	305
AJHS (47)	42	43	39	9	9	4	4	7	3	6	6	6	5	3	7	5	1	3	0	1	1	0	1	6	6	2	1	220
HEB (48)	32	29	30	15	16	13	16	11	8	11	10	21	21	22	22	7	4	6	6	2	3	2	3	13	12	5	6	346
HPP (5)	1	1		2	1	2	1	1	0	2	0	4	4	4	4	0	1	1	0	0	0	0	0	0	0	0	0	29
Subtotals	98	96	92	37	40	30	29	29	18	30	23	53	49	51	56	17	11	14	10	5	9	5	7	37	28	15	11	900
Project Total	286			136				100				209				52				26				91				

*n=number articles in the sample

articles reviewed. Again, Responsibility I (assessing needs) was addressed most frequently. This journal published articles that covered the competencies with the greatest frequency. The two competencies addressed the least in any of the 48 articles were under Responsibility VI. Competency A (utilize computerized health information retrieval systems) and Competency C (interpret results of program evaluation) were each addressed in two articles.

The 48 articles selected from the *American Journal of Health Education* addressed competencies 305 times. Again, the most prevalent competencies addressed were under Responsibility I. The three competencies addressed the least in any of the 48 articles were under Responsibility VI (acting as a resource person). Competency A (utilize computerized health information retrieval systems effectively) in Responsibility VI was addressed in only two articles. Competencies C (interpret and respond to requests for health information) and D (select effective educational resource materials for dissemination) were each addressed in three articles.

In the 47 *American Journal of Health Studies* articles, the competencies were addressed a total of 220 times. As was the

case for the entire sample of four journals, the three competencies that were addressed most often fell under Responsibility I. Two competencies were not addressed in any of the 47 *American Journal of Health Studies* articles. Responsibility V, Competency D (organize in-service training programs for teachers, volunteers, and other interested personnel), and Responsibility VI, Competency C (interpret and respond to requests for health information), were not addressed in any articles for CECH published in this journal.

Competencies were addressed 29 times in the five *Health Promotion and Practice* articles that were reviewed. Responsibility IV (evaluating programs) was addressed most often. All four of the competencies under Responsibility IV were covered in four of the five articles reviewed. In addition to the smallest number of CECH articles, this publication was the journal that covered the smallest range of competencies. Thirteen of the 27 competencies were not addressed in any of the articles for this journal. None of the competencies under Responsibilities VI (acting as a resource person) and VII (communicating health and health education needs, concerns, and resources) were addressed.

DISCUSSION

Certification of health educators is still a relatively new endeavor. It was only 13 years ago that the competency-based framework for the professional development of health educators was put into place with the CHES credential. A charter certification phase was initiated in 1989 and followed by the first CHES examination in 1990 (Cleary, 1995). Since that time there has been a need for a variety of avenues and mechanisms by which CHESs may receive continuing education credit. Responding to that need, some of the major health education professional organizations have been offering self-study opportunities for CECH through articles published in their respective journals.

The results of this study indicate that the competencies within Responsibility I (assessing needs) were addressed in the majority of the articles used for CECH. After Responsibility I, Responsibilities IV (evaluating programs) and VII (communicating health needs, concerns, and resources) were covered most frequently. However, less than 50% of the articles reviewed addressed these competencies at all. Because a current standard does not exist, it is difficult to say whether the level



these responsibilities are addressed in the articles used for CECH is adequate.

Although CECH self-study articles often describe research projects that include needs assessments, and to a lesser extent evaluations, articles are much less likely to discuss coordinating health education programs (Responsibility V), and they rarely address the competencies required for acting as a resource person (Responsibility VI). Similar results were found in our earlier study (Clark et al., 2000). Consequently, a research-focused journal such as *Health Education and Behavior* is likely to have the greatest number of articles in Responsibilities I and IV, as was the case in the CECH sample in this study.

One might surmise that a practitioner-based journal, such as *Health Promotion and Practice*, might cover the broadest range of competencies. Given that the competencies should reflect the clusters of skills and knowledge that a health educator should possess, it is interesting to note that this journal's CECH articles addressed the fewest competencies. Certainly, the small number of CECH articles from this journal ($n=5$) and the journal being in its infancy are explanations. Future studies might compare practitioner-based journals, publications, and other venues (e.g., conferences, workshops, and Internet) for assisting practitioners to obtain CECH that have been found to be effective (Umble & Cervero, 1996).

This study did not assess how the editors of the four journals decide what articles will be used for CECH. This process is worthy of some attention. Although the procedure followed at one time by the *Journal of Health Education* (the previous name of the *American Journal of Health Education*) was described by Redican and Stewart (1998), the current procedure for any of the four journals is not widely known. It could be argued that the responsibilities addressed by the CECH articles in the professional journals are in response to the stated needs of health educators. Birch and Pearson (1995) found the "highest levels of interest were found for those

competencies under the responsibility, Evaluating Effectiveness of Health Education Programs [IV]. . . Interest was also high in two other areas of responsibility: Acting as a Resource Person in Health Education [VI], and Communicating Health and Education Needs, Concerns, and Resources [VII]" (p. 171). Although the data are not an exact match, there does appear to be an overlap of the stated needs of practitioners and what is offered in the CECH articles. Perhaps the next logical step is an examination of these procedures.

A preponderance of articles covered Responsibility I ($n=113$ articles; 76% of the sample), whereas each of the remaining six responsibilities accounted for fewer than 50% of the articles. If self-study articles are going to continue to be used for CECH for CHES recertification, there may be a need to provide continuing education articles that address a broader range of areas and competencies. Perhaps CHES continuing education providers who offer CECH outside of self-study should focus on the areas that are seldom addressed in professional literature and leave the self-study articles to address needs assessments and evaluations.

The availability of obtaining CECH via the professional journals is both convenient and practical. A review of the CECH articles from 1997 to 2000 revealed the literature can provide CHESs with a variety of articles addressing all the responsibilities and competencies. Thus, CHESs have the opportunity to keep up to date via the published literature. However, the literature does not provide CHESs with opportunity to obtain CECH in all responsibilities and competencies. There may be many explanations for the apparently inconsistent coverage of the responsibilities in the CECH literature. We have identified four plausible reasons. First, the nature of format used for most manuscripts makes some responsibilities easier to describe in the written word. Second, the profession may find some responsibilities more/less important than others. Consequently, a corresponding focus on those responsibilities is found in the literature.

Third, editors may not be concerned with selecting across the array of responsibilities. And finally, editors may not have the "luxury" of being able to select from a pool of articles addressing all responsibilities.

As a result of this study, it can be concluded that the competencies are not addressed uniformly in the continuing education articles. The findings of this study suggest that editorial boards of professional journals should discuss the issue of selecting articles from all the areas of responsibility and clarify the roles of their respective journals in continued professional development of their readers.

Research often poses more questions than it answers, as is the case here. The primary question that arises from this study is, should professional organizations address the limited number of CECH articles related to some of the responsibilities and competencies (e.g., coordinating and acting as a resource person)? Based on the results of this study, we offer the following modest proposal to address the concerns raised.

First, the editors and editorial boards should consider establishing a focus of the responsibilities and competencies to be presented in their journal(s). Although NCHES has not expressly stated that any responsibilities are more important than others, it is clear that some responsibilities received more publication space than others. It is not unreasonable to assume that the importance of specific responsibilities and competencies may differ for each of the editorial groups. Without an established priority, however, any changes made to the process of selecting manuscripts would be premature.

Once the focus of the continuing education needs of a journal has been established, a method for monitoring the presentation of responsibilities and competencies can be addressed. The monitoring process could be based on a ratio of the responsibilities and competencies presented to the established focus created by the editor. If the journal lacks adequate manuscripts to support the publication of



specific responsibilities, then the editors should consider a call for manuscripts. Editors also might consider establishing a rotation of articles based on the seven responsibilities. If this process proves successful, professional associations and/or continuing education providers might consider a similar approach to expand the scope of responsibilities by ensuring that conference programs represent a greater range of responsibilities.

Our findings indicated that specific responsibilities are addressed in CECH articles more frequently than are other responsibilities. This may occur because a significant percentage of the contributing authors are university faculty. Often, tenure and promotion requirements for faculty dictate that data based research is conducted. We believe such research is likely to yield articles addressing needs assessment and program evaluation. If the dictates of publishing in professional journals require that the articles place a heavy emphasis on assessing needs and program evaluation, the editors should explore alternative means to address the responsibilities less conducive to manuscript publications.

Health educators, whether practitioners or faculty, depend on journal articles as sources for learning about advancements in the profession and for continuing education. Because the responsibilities and competencies were established as the foundation of core health education practice, future research should investigate an appropriate method of monitoring journal articles for adequate coverage of the seven responsibilities. The profession has a responsibility to ensure health educators have access to sources that increase the knowledge base for all the responsibilities vital to health education.

REFERENCES

- Aday, L. A. (1989). *Designing and conducting health surveys*. San Francisco: Josey-Bass Publishers.
- Auld, E. (1997). SOC approves new occupational category for "health educator." *CHES Bulletin*, 8(4), 61-62.
- Birch, D. A., & Pearson, V. M. (1995). Continuing education interests of certified health education specialists. *Journal of Health Education*, 26, 167-172.
- Borderns, K. S., & Abbott, B. B. (1988). *Research design and methods: A process approach*. Mountain View, CA: Mayfield Publishing Company.
- Clark, J. K., Ogletree, R. J., Chamness, B. E., Atkinson, D., & McKenzie, J. F. (2000). An assessment of health education competencies addressed in health education professional literature. *Journal of Health Education*, 31, 282-286, 291.
- Cleary, H. P. (1995). *The credentialing of health educators: An historical account 1970-1990*. New York: National Commission for Health Education Credentialing, Inc.
- Cottrell, R. R., Girvan, J. T., & McKenzie, J. F. (1999). *Principles and foundations of health promotion and education*. Boston: Allyn & Bacon.
- Holsti, O. R. (1969). *Content analysis for the social sciences and humanities*. Reading, MA: Addison-Wesley.
- National Commission for Health Education Credentialing, Inc. (1990). *A framework for competency-based health education*. New York: Author.
- National Commission for Health Education Credentialing, Inc. (1994). *Renewal and recertification handbook for certified health education specialists*. New York: Author.
- National Commission for Health Education Credentialing, Inc. (1999). CHES continuing education contact hour changes. *CHES Bulletin*, 10(2), 54.
- Redican, K. J., & Stewart, S. H. (1998). Journal-based continuing education: An overview of the process. *Journal of Health Education*, 29, 381-382.
- Scott, W. A. (1955). Reliability of content analysis: The case of nominal scale coding. *Public Opinion Quarterly*, 19, 321-325.
- Taub, A. (1993). Credentialing: The basics. *Journal of Health Education*, 24, 261-262.
- Umble, K. E., & Cervero, R. M. (1996). Impact studies in continuing education for health professionals: A critique of the research synthesis. *Evaluation & the Health Professions*, 19, 148-174.



Authors! Notice

In my editorial in Jan/Feb 2001, I wrote that we would be making more changes to the journal. We are going to electronic submission and review of manuscripts effective immediately. While we prefer authors to begin using this system, we will still accept hard copy submissions until December 2002, after which we will switch completely to the on-line system. This will help to reduce turnaround time for manuscript review to not more than 2 months! Please see the new Guidelines for Authors in this issue of the Journal for details.

James H. Price, PhD, MPH
Editor

Available Immediately

Electronic Manuscripts Submission and Review

See the new Guidelines
for Authors for details